

REMARKS

A "Request For Extension Of Time" for extending the due date for responding to the Office Action by two months and a Credit Card Payment Form (Form PTO-2038) for payment of the fee for the extension of time are being filed with this Amendment. Authorization is granted to charge any other fees, if necessary, for entry of this Amendment to our Deposit Account No. 18-1644.

The Examiner has acknowledged applicant's claim for foreign priority based on application No. Hei 11-034954 filed in Japan and noted that a certified copy of such application has not yet been filed. Applicant notes that the application on which the claim for priority is based was filed in Japan on February 12, 1999, not February 8, 2000 as stated by the Examiner. A letter enclosing this priority document is being mailed by mail certification concurrently with the filing of this response. Entry of the claim for priority is accordingly requested upon receipt of such document.

Claims 1 and 7 have been amended and claim 2 has been cancelled. Attached hereto is a marked-up version of the changes made to the claims by this Amendment. The marked-up version is entitled "Attachment A: Marked-Up Version Showing Changes Made to the Claims."

The Examiner has rejected applicant's claims 1, 7 and 10 under 35 USC § 102(e) as being anticipated by Kobayashi et al. (U.S. Patent No. 6,441,978). The Examiner has also rejected applicant's claims 1, 7 and 10 under 35 USC§ 102(e) as being anticipated by Kobayashi et al. (U.S. Patent No 6,330,121). The Examiner has further rejected applicant's claims 2-6, 8 and 9 under 35 USC § 103(a) as being unpatentable over Kobayashi et al. ('121)

in view of Kuenster et al. (U.S. Patent No. 6,157,291). With respect to applicant's claims, as amended, these rejections are respectfully traversed.

Applicant's independent claims 1 and 7 have been amended to better define applicant's invention. More particularly, claim 1 has been amended to include the limitation of claim 2, namely, that the head-mounted display apparatus includes earphone holding members arranged on the side frames of the apparatus for detachably holding earphones, and that each earphone holding member is composed of an elastic body fixed to a lower side of the side frames and is arranged to detachably hold a stem part of each of the earphones inserted into the elastic body. Claim 7 has been similarly amended. Such a construction is neither taught nor suggested by the cited art of record.

In applicant's invention of these claims, the head-mounted display ("HMD") has earphone holding members for holding earphones that are arranged on the side frames of the HMD, so that the earphones are detachably held on the lower side of the side frames. Specifically, in one embodiment of the invention shown in FIG. 1, earphone holding members 10L and 10R are attached to the lower sides of the side frames 6L and 6R and are each composed of an elastic body, arranged to detachably hold, with an elastic force, the stem part of earphones 13L and 13R, respectively. This structure enables a user to mount the earphones in a suitable position in accordance with an individual user's preferences and comfort.

Applicant's invention of claim 10 teaches an HMD including a front frame on which a display part is mounted, right and left side frames connected to two ends of the front frame by hinge parts in a foldable manner, a mount pad disposed opposite the forehead of a user, and elastic members in parts of the right and left side frames, wherein the mount pad is arranged to be urged toward a user's forehead by elastic forces of the right and left side frames and

wherein the elastic members are arranged to be located on the outside of the display part in a state obtained when the right and left frames are folded with respect to the front frame.

The Kobayashi et al. ('978) patent teaches a head-mounted display device including an upper portion of the main frame, coupling mechanism or holding member, rotatable display part, left and right rear frame members coupled to the main frame by hinges, and a mount pad held in forced contact with the front head portion of a user by elastic forces. However, Kobayashi et al. ('978) clearly does not teach or suggest that the HMD also includes earphone holding members arranged on the side frame to hold earphones, as claimed in amended claims 1 and 7. Further, with respect to claim 10, the reference neither teaches nor suggests the relation of positions between the display and the side frames when they are folded; namely, that the elastic members are arranged to be located on the outside of the display part in a state obtained when the right and left side frames are folded with respect to the front frame.

With respect to the Kobayashi et al. ('121) patent, the Examiner has acknowledged that it fails to teach a head mounted display apparatus with earphone holding members arranged on the side frame to hold earphones. The Examiner stated that the Kuenster et al. patent teaches a related HMD that does include earphone retainers 36, 37 which are removably mounted on temples 20, 21 and further suggested that the arrangement taught by Kuenster et al. ensures accuracy of mounting positions by utilizing the pluralities of mounting positions for mounting various related members. The Examiner therefore concluded that it would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the earphone holding members taught by Kuenster et al. in the HMD of Kobayashi et al. "because this would allow users to utilize different earphones that are connectable with the earphone jacks of the system."

However, the combination proposed by the Examiner neither teaches nor suggests an HMD including earphone holding members composed of an elastic body fixed to a lower side of the side frames for detachably holding a stem part of each of the earphones. Particularly, as acknowledged by the Examiner, the Kobayashi et al. ('121) patent discloses an HMD adapted to hold a display on the head of a user using a front frame and side frames, but it does not teach or suggest a structure for holding earphones as presently claimed. The Kuenster et al. patent does disclose a structure for mounting earphones (38, 39 as shown in FIG. 1) on the side frames of an HMD which are removable from temples 20, 21, as noted by the Examiner. However, applicant submits that the device taught by Kuenster et al. does not teach or suggest earphone holding members composed of an elastic body arranged to detachably hold a stem part of each of the earphones, nor does it teach or suggest that such elastic members are fixed to a lower side of the side frames of the HMD. Rather, as shown in FIGS. 19-21 and described at Col. 10, lines 5-30 of the cited reference, the earphones are held by ring retainers 36, 37 which are mounted on a mounting members 278. Each mounting member 278 is positioned in a groove 276 formed in an upper surface of the temple bar 270. Although Kuenster et al. does contemplate a second groove (not shown) extending along a bottom surface 280 of the temple bar 270 to receive portions 282 and 283 of the ring retainer 36, 37 the reference does not teach that earphone holding members 36, 37 are fixed to a lower side of the side frames, as taught by applicant's invention. Further, Kuenster et al. does not teach or suggest that ring retainers 36, 37 are elastic members.

Further, with respect to claim 10, neither patent teaches or suggests the relation of positions between the display and the side frames when they are folded; namely, that the

elastic members are arranged to be located on the outside of the display part in a state obtained when the right and left side frames are folded with respect to the front frame.

Accordingly, the Kobayashi et al. patents and the Kuenster et al. patent, taken alone or in combination, fail to teach or suggest a head-mounted display apparatus with earphone holding members composed of an elastic body fixed to a lower side of the side frames for detachably holding a stem part of each of the earphones. The cited references also fail to teach or suggest an HMD in which the elastic members are arranged to be located on the outside of the display part in a state obtained when the right and left side frames are folded with respect to the front frame. It is therefore submitted that the independent claims 1, 7 and 10 are patentable based upon the Kobayashi et al. ('978), Kobayashi et al. ('121) and Kuenster et al. references not disclosing or suggesting the content therein within the meaning of Sections 102 and 103. Based upon the patentability of the pending independent claims, the dependent claims are also submitted as patentable since they differ in scope from the parent independent claims.

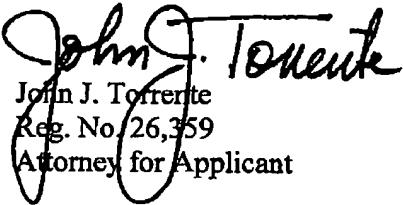
In view of the above, it is submitted that applicant's claims 1-10 patentably distinguish over the cited art of record. Accordingly, reconsideration of these claims and passage of same to issue with the allowed claims is respectfully requested.

If the Examiner believes that an interview would expedite consideration of this Amendment or of the application, a request is made that the Examiner telephone applicants' counsel at (212) 682-9640.

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Respectfully submitted,

  
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Attachment A: Marked-Up Version Showing Changes Made to the Claims

IN THE CLAIMS

Amend claim 1 as follows:

1. (Three Times Amended) A head-mounted display apparatus, comprising:

a front frame on which a display part is mounted through a holding member in a stowable manner and a mount pad is disposed opposite to a forehead of a user, said display part being rotatable in forward and reverse directions;

side frames which are connected respectively to two end parts of said front frame by hinge parts in a state of being movable to inner stowed positions by turning the hinge parts, said head-mounted display apparatus being capable of being mounted and held on the forehead of the user by pressing the mount pad to the forehead of the user and pressing a back part of the user's head by an elasticity of said side frames; and

earphone holding members arranged on said side frames to detachably hold earphones.

wherein each of said earphone holding members is composed of an elastic body fixed to a lower side of each of said side frames and is arranged to detachably hold, with an elastic force, a stem part of each of the earphones inserted into said elastic body.

Cancel claim 2.

Amend claim 7 as follows:

7. (Three Times Amended) A head-mounted display apparatus, comprising:

a front frame on which a display part is mounted;

right and left side frames which are connected respectively to two end parts of said front frame by hinge parts in a foldable manner;

elastic members provided in parts of said right and left side frames located opposite to the temple parts of a user and covering said right and left side frames respectively;  
a mount pad disposed in a position of said front frame opposite to the forehead of [a] the user and arranged to be urged toward the forehead of the user by elastic forces of said right and left side frames generated toward a back part of the head of the user; and  
[elastic members provided in parts of said right and left side frames located opposite to the temple parts of the user,]  
earphone holding members being arranged on said side frames to detachably hold earphones and each of said earphone holding members being composed of elastic body fixed to lower side of each of said side frames and arranged to detachably hold, with an elastic force, a stem part of each of the earphones inserted into said elastic body  
[wherein said mount pad is arranged to be urged toward the forehead of the user by elastic forces of said right and left side frames generated toward a back part of the head of the user, and said elastic members covers said right and left side frames respectively].